What is claimed is:

1. A motor vehicle comprising:

    an engine;

    a controller area network;

    an hydraulic power take off pump driven by the engine;

    an hydraulic circuit connected to the hydraulic power take off pump for energization;

    a plurality of sensors coupled to the hydraulic circuit for generating values for operating variables of the hydraulic circuit;

    an auxiliary gauge and switch package connected to the controller area network for data communication;

    a management panel under the control of the gauge and switch package for displaying hydraulic system operating variables and providing operator controls, the auxiliary gauge and switch package providing for generating control signal requests for transmission over the controller area network responsive to operator manipulation of the management panel;

    a valve system controller connected to the controller area network and further coupled to the hydraulic system for monitoring hydraulic system operating variables and controlling hydraulic system valve positions;

    an electrical system controller connected to the controller area network for data communication; and

a control program resident on a selected one of the controllers connected to the controller area network for integrating power take off operation of the hydraulic system with vehicle operation and responsive to operating variables and request for control signals for generating control signals.

2. A motor vehicle as set forth in claim 1, further comprising:

the control program being resident on the electrical system controller.

3. A motor vehicle as set forth in claim 2, further comprising:

a plurality of engine performance sensitive sensors including a tachometer;

an engine control unit connected to the controller area network for data communication and coupled to the plurality of engine sensors for monitoring engine operating variables and further coupled to the engine for controlling engine output; and

the control program including steps responsive to the hydraulic system operating variables for communicating a request to the engine control unit to increase engine output.

4. A motor vehicle as set forth in claim 1, further comprising:

a transmission controller providing indication of vehicle transmission status;

means for indicating parking brake status; and

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the control program being responsive to the vehicle transmission status and parking brake status for setting an interlock status.

5. A motor vehicle as set forth in claim 1, the hydraulic system further comprising:

the saddle tank being mounted to a truck frame siderail.

6. A vehicle power take off system comprising:

a vehicle prime mover;

a hydraulic pump coupled to the vehicle prime mover for energization;

a vehicle controller area network including a engine controller for the engine prime mover and an electrical system controller, the engine controller being responsive to requests from the electrical system controller for changing prime mover output and the electrical system controller node being programmed to execute a load management program;

a valve controller connected to the vehicle controller area network;

a valve array under the control of the valve controller for directing pressurized hydraulic fluid from the hydraulic pump to hydraulic actuators; and

a saddle tank providing a reservoir for hydraulic fluid to be drawn by the hydraulic pump.

7. A power take off system as set forth in claim 6, further comprising:

an auxiliary gauge and switch package connected to the vehicle controller area network for communication with the valve controller; and

a control panel for communication with the valve controller through the auxiliary gauge and switch package and over the vehicle controller area network.

8. A modular power takeoff system comprising:

a controller area network;

an hydraulic pump;

an hydraulic valve array connected to receive hydraulic fluid under pressure from the hydraulic pump;

a valve controller connected to receive and transmit data over the controller area network and further connected to the hydraulic valve array for controlling the positioning of valves;

at least a first hydraulic actuator connected to receive and return hydraulic fluid to the hydraulic valve array;

an hydraulic fluid reservoir for collecting hydraulic fluid from the hydraulic valve array and providing hydraulic fluid to the hydraulic pump completing an hydraulic circuit;

a plurality of sensors for generating operational data relating to the hydraulic circuit to the valve controller, the valve controller being adapted to provide for

formatting of the data for transmission over the controller area network;

an auxiliary gauge and switch package controller connected for communication over the controller area network for providing requests for control signals; and

an operator interface connected to the auxiliary gauge and switch package for allowing operator inputs for generating requests for control signals.

9. A modular power takeoff system as set forth in claim 8, further comprising:

the operational data including hydraulic fluid reservoir level, hydraulic fluid pressure in the hydraulic circuit and hydraulic fluid temperature; and

the operational data being transmitted over the controller area network formatted as various standard motor vehicle operational data messages.

10. A modular power takeoff system as set forth in claim 9, further comprising:

an electrical system controller connected to the controller area network for data communication and further connected for receiving data relating to vehicle transmission status and vehicle parking brake status; and

a program resident on the electrical system controller responsive upon execution to receipt of the operational data, vehicle transmission status, vehicle parking brake status and requests for signals for generating control signals for transmission over the controller area network.

11. A modular power takeoff system as set forth in claim 10, further comprising:

an engine for driving the hydraulic pump;

an engine controller connected to the controller area network; and

the program being further responsive to particular operational data and requests for control signals for requesting increases in engine output from the engine controller.